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09/887,086	06/25/2001	Aviad Zlotnick	ZLOTNICK=1	7417

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EXAMINER	
PESIN, BORIS M	

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/887,086	ZLOTNICK, AVIAD	
	Examiner	Art Unit	
	Boris Pesin	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/09/06/01*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

The examiner is not sure whether or not "form" is supposed to be "from" in the phrase "particularly coding of characters in form documents by OCR" Page 3, Line 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 1, 6, 7, 9, 18, 22, 25, 30, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) in view of Fleming (US 6473752).

In regards to claim 1, Lorie teaches a method for presenting the data to the operator on a computer-controlled display (i.e. "A user interface ... is provided for

allowing a user to examine intermediate results and to make appropriate entries of characters or decisions.", Column 4, Line 38). Lorie further teaches a method where the operator verifies the presented data (i.e. "operator intervention to verify and correct the information", Column 1, Line 54). Lorie further teaches a method for evaluating the verification of the data by the operator responsive to the time duration (i.e. "evaluating results obtained by said automatic context analysis, to identify characters requiring further processing", Column 9, Line 40). Lorie does not teach a method for measuring a time duration over which the operator interacts with the display. Fleming teaches that it is possible to "measure user interaction with displayed computer documents" (Column 16, Line 43). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie with the teachings of Fleming to include a method for measuring the interaction between an operator and a display with the motivation to increase efficiency.

In regards to claim 6, Lorie and Fleming teach all the limitations of claim 1. Lorie further teaches a method to verify entire screen of the data (i.e. "A user interface [i.e. screen]... is provided for allowing a user to examine intermediate results and to make appropriate entries of characters or decisions.", Column 4, Line 38). Fleming further teaches a method for measuring a time duration over which the operator interacts with the display.

In regards to claim 7, Lorie and Fleming teach all the limitations of claim 1. Lorie further teaches the method wherein measuring the time duration over which the operator interacts with the display comprises measuring an interaction with a particular

item on a screen of the data. (i.e. "the total amount of time spent accessing a term may be calculated by determining the amount of time spent accessing documents whose contents contain the term, or it may be possible to determine and count only the amount of time spent accessing a particular term within a document", Column 7, Line 20).

In regards to claim 9, Lorie and Fleming teach all the limitations of claim 1. Lorie further teaches the method wherein evaluating the verification of the data comprises assigning a confidence level to the data responsive to the time duration. (i.e. "confidence is measured, by a suitable means, according to an arbitrary numerical scale normalized over the range 0-1000.", Column 5, Line 39).

Claim 18 is in the same context as claim 1; therefore it is rejected under similar rationale.

Claim 22 is in the same context as claim 6; therefore it is rejected under similar rationale.

Claim 25 is in the same context as claim 1; therefore it is rejected under similar rationale.

Claim 30 is in the same context as claim 6; therefore it is rejected under similar rationale.

Claim 31 is in the same context as claim 7; therefore it is rejected under similar rationale.

Claim 33 is in the same context as claim 9; therefore it is rejected under similar rationale.

2. Claims 2, 3, 4, 5, 19, 20, 21, 26, 27, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Matsukawa et al. (US 6470336).

In regards to claim 2, Lorie and Fleming teach all the limitations of claim 1. Lorie further teaches that the assigned codes, or characters (Column 4, Line 38), are correct. They do not teach a method wherein presenting the data comprises displaying characters from a document to which codes have been assigned. Matsukawa teaches "characters to which the character codes are assigned are shown" (Column 14, Line 21). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie and Fleming with the teaching of Matsukawa with the motivation to provide for easier understanding (Column 14, Line 22).

In regards to claim 3, Lorie, Fleming, and Matsukawa teach all the limitations of claim 2. Lorie further teaches a method wherein displaying the characters comprises displaying results of optical character recognition (OCR) processing. (i.e. "the process uses operator input to certify the character-level OCR result of (or enter) a certain percentage of the characters so that context analysis may accept some of the remaining fields.", Column 3, Line 31).

In regards to claim 4, Lorie teaches a method wherein displaying the results comprises displaying together a plurality of characters which have been assigned the same code by OCR processing. (i.e. "presenting the user with a selection of possible choices for characters within a field", Column 10, Line 63).

In regards to claim 5, Lorie, Fleming, and Matsukawa teach all the limitations of claim 2. Matsukawa further teaches a method wherein displaying the characters comprises presenting characters in the form of a word. (Since Matsukawa invention deals with the recognition of Japanese characters, each character is considered a word.)

Claim 19 is in the same context as claim 2; therefore it is rejected under similar rationale.

In regards to claim 20, Matsukawa teaches a method wherein the codes are determined by optical character recognition (OCR) processing of characters. (i.e. "characters to which the character codes are assigned are shown", Column 14, Line 21).

In regards to claim 21, Lorie teaches presenting data for verification comprising a plurality of characters which have been classified by OCR processing as having the same code. (i.e. "presenting the user with a selection of possible choices for characters within a field", Column 10, Line 63).

Claim 26 is in the same context as claim 2; therefore it is rejected under similar rationale.

Claim 27 is in the same context as claim 3; therefore it is rejected under similar rationale.

Claim 28 is in the same context as claim 4; therefore it is rejected under similar rationale.

Claim 29 is in the same context as claim 5; therefore it is rejected under similar rationale.

3. Claims 8, 23, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of deCarmo et al. (US 6181339).

In regards to claim 8, Lorie and Fleming teach all the limitations of claim 1. They do not teach a method for monitoring use of a pointing device by the operator. deCarmo teaches that his, "system utilizes a method of monitoring location of the icon for the pointing device as moved by the user"(Column 3, Line 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Lorie and Fleming with the teaching of deCarmo to include a method for monitoring the pointer with the motivation to provide for reducing confusion in attempting to select a desired button (deCarmo, Column 2, Line 17).

Claim 23 is in the same context as claim 8; therefore it is rejected under similar rationale.

Claim 32 is in the same context as claim 8; therefore it is rejected under similar rationale.

4. Claims 10 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Strub et al. (US 6563532).

In regards to claim 10, Lorie and Fleming teach all the limitations of claim 9. They do not teach a method wherein the confidence level is lowered as the time duration increases. Strub teaches that "as the confidence level decreases, the duration of time increases"(Column 87, Line 45). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Lorie and Fleming with the teaching of Strub to include a method for decreasing the confidence level as the duration of time increases with the motivation of increasing the likelihood of displaying content of interest (Strub, Column 87, Line 46).

Claim 34 is in the same context as claim 10; therefore it is rejected under similar rationale.

5. Claims 11, 12, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) and Strub et al. (US 6563532) in view of Burch (US 6295387).

In regards to claim 11, Lorie, Fleming, and Strub teach all the limitations of claim 10. They do not teach the method comprising effecting a corrective action responsive to the low confidence level. Burch teaches, "The low confidence data is typically re-keyed into the system manually."(Abstract, Line 15). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie, Fleming, and Strub with the teachings of Burch to include a corrective action in response to a low confidence level with the motivation to provide for more accurate results.

In regards to claim 12, Lorie, Fleming, Strub and Burch teach all the limitations of claim 10. Burch further teaches a method for corrective action that comprises presenting the data to a second operator. (i.e. "If they do not match, a second operator inputs additional data manually.", Abstract, Line 20)

Claim 35 is in the same context as claim 11; therefore it is rejected under similar rationale.

Claim 36 is in the same context as claim 12; therefore it is rejected under similar rationale.

6. Claims 13 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Graves (US 6454173).

In regards to claim 13, Lorie and Fleming teach all the limitations of claim 1. Lorie and Fleming do not teach rejecting the verification of the data when the time duration exceeds a predetermined limit. Graves teaches to "reject said card [i.e. data] when said card verification message is not received within said second predetermined period of time" (Column 10, Line 19). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Lorie and Fleming with the teaching to Graves to include a method to reject the verification of the data if it exceeds the predetermined time period with the motivation to provide more reliable results.

Claim 37 is in the same context as claim 13; therefore it is rejected under similar rationale.

7. Claims 14 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531), Fleming (US 6473752) and Graves (US 6454173) in view of Burch (US 6295387).

In regards to claim 14, Lorie, Fleming and Burch teach all the limitations of claim 13. They do not teach the method wherein rejecting the verification comprises passing the data to another operator for verification. Burch teaches that, "If they [data] do not match, a second operator inputs additional data manually.", (Abstract, Line 20). Meaning that if the data from the first operator and the OCR do not match up, a second operator gets the data for verification. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Lorie, Fleming, Graves with the teaching of Burch to include a method to pass data to another operator with the motivation to provide more reliable results.

Claim 38 is in the same context as claim 14; therefore it is rejected under similar rationale.

8. Claims 15 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Allen (US 4256953).

In regards to claim 15, Lorie and Fleming teach all the limitations of claim 1. They do not teach a method wherein measuring the time duration comprises calculating an average time duration for the operator to process a given quantity of the data and comparing the time duration to the average. Allen teaches a process where "an operator may compare the duration of a just completed step with the average durations

of the operator's own previous steps and all operator's previous steps." (Column 1, Line 67). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie and Fleming with the teachings of Allen to include a method of comparing the average time to the duration with the motivation to provide for accurate results.

Claim 39 is in the same context as claim 15; therefore it is rejected under similar rationale.

9. Claims 16, 24, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Melville et al. (US 5982555).

In regards to claim 16, Lorie and Fleming teach all the limitations of claim 1. They do not teach a method for measuring movement of the eye of the operator in viewing the display. Melville teaches that in his invention, "the display can track [i.e. measure] where a viewer is looking, use the viewer's eye as a pointer, and identify the person using the display" (Column 2, Line 31). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie and Fleming with the teaching of Melville and include a method for measuring the movement of the eye for easier navigation of the screen.

Claim 24 is in the same context as claim 16; therefore it is rejected under similar rationale.

Claim 41 is in the same context as claim 16; therefore it is rejected under similar rationale.

10. Claims 17 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Radomsky et al. (US 6600899).

In regards to claim 17, Lorie and Fleming teach all the limitations of claim 1. They do not teach a method for rejecting the verification of data when the time duration is less than a predetermined limit. Radomsky teaches a method "suppressing any pulse whose time duration is less than a predetermined time period and this constitutes spurious glitches rather than actual data [i.e. data not verified]" (Column 10, Line 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie and Fleming with the teachings of Radomsky and include a method for rejecting the verification of data when the time duration is less that a predetermined limit with the motivation to provide more accurate results.

Claim 42 is in the same context as claim 17; therefore it is rejected under similar rationale

11. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lorie (US 5933531) and Fleming (US 6473752) in view of Graham et al. (US 6281879).

In regards to claim 40, Lorie and Fleming teach all the limitations of claim 25. They do not teach a product wherein the instructions cause the computer to measure a

time duration of a mouse cursor dwelling substantially on one item on the display by tracking the cursor by means of a tracking device, the tracking device connected electronically to the computer. Graham teaches, "The preferred embodiment of the present invention displays a tool tip when a mouse cursor points to a tool or a tool bar for a sufficient amount of time" (Column 3, Line 27). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lorie and Fleming with the teaching of Graham and include a method for measuring the time duration of a mouse cursor dwelling substantially on one item on the display with the motivation to make the application easier to use (Graham, Column 1, Line 27).

Conclusion

The prior art made of record and is considered pertinent to applicant's disclosure.

US005933531A	Lorie
US006473752B1	Fleming, III
US006470336B1	Matsukawa et al.
US006181339B1	deCarmo et al.
US006563532B1	Strub et al.
US006295387B1	Burch
US006454173B2	Graves
US 4256953	Allen
US005982555A	Melville et al.
US006600899B1	Radomsky et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (703) 305-8774. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (703) 308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).